

REMARKS

Claims 1-26 were pending. Without conceding any of the examiner's positions, the applicant has cancelled claims 9-26 and amended claims 1, 2, 4, and 7. The applicant has added new claims 27-51. Claims 1-8 and 27-51 are now pending and submitted for consideration.

The examiner rejected claims 1-8, under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 6,119,094 to Lynch ("Lynch").

Currently amended claim 1 recites a requirements generator ... and a selection module to output a set of diverse travel options smaller than a candidate set of travel options by selecting from the candidate set of travel options, for each travel requirement ... one or more travel options that satisfy that travel requirement....

Lynch discloses a system for identifying alternate low-cost travel arrangements, but Lynch does not teach or suggest a system for outputting a diverse set of travel options. [see e.g., Lynch, abstract] The genetic algorithms of Lynch are used for generating a candidate set of travel options that includes alternates to the specific travel request that the user inputs. For example, Lynch states that "system 10 inputs the city pair information, and other parameters specified in the travel request, into the genetic algorithms. In response to the input information, the genetic algorithms produce a set of parameters which can be used to identify travel arrangements that may be suitable for the customer." (emphasis added) [Lynch, col. 7, lines 29-34]

In applicant's claim, the candidate set of travel options is reduced to a smaller, diverse set of travel options. As stated above, the genetic algorithm of Lynch generates the candidate set of travel options. In contrast to the applicant's claimed invention, Lynch does not teach or suggest selecting from this candidate set of travel options generated using the genetic algorithms, for each travel requirement, one or more travel options that satisfy that travel requirement.

Moreover, the examiner states that it would have been obvious to one of ordinary skill in the art to modify the system of Lynch to compactly display ...the final candidate pools. [Office Action, page 7] Applicant has amended claim 1 to clarify, not narrow, that as stated in previous replies, the term compact representation is a reference to a data structure that compactly stores

the candidate set of travel options. Applicant in the prior response stated that the term "graph" was used, for example, in association with FIG. 3B. This figure is not an illustration of a display, but an illustration of a data structure used to represent a set of travel options. So, to modify Lynch to compactly display travel options, does not meet all of the limitations of the claimed invention, making the 103 rejection improper.

Dependent claims 2-8 are distinct for at least the reasons above and add additional distinct features.

Claim 4 as currently amended recites a travel option generator module to generate a first ordered set of travel options using a first preference function and a second ordered set of travel options using a second preference function, wherein the selection module outputs a set of diverse travel options by selecting a first and second number of travel options from each of the first and second ordered set of travel options, respectively.

Further, as recited in new claims 29 and 51, applicant's claimed invention outputs a diverse set of travel options that includes at least one travel option compliant with a first travel requirement and at least one travel option compliant with a second travel requirement. Lynch, on the other hand, tries to identify alternate arrangements that are suitable, based on the user request and/or company profiles. Lynch teaches in one section that "if the travel request had specified that only Delta Airlines flights should be considered, then the possible travel arrangements listed above would be reduced by two-thirds (i.e., only travel arrangements (2) and (3) would have been considered)." [Lynch, col. 8, lines 10-14] Lynch teaches in another section, "if a corporation specifies that its employees should travel only on American Airlines for work-related matters, system 10 eliminates from consideration all flight arrangements provided by another airline." [Lynch, col. 8, lines 23-26] Lynch teaches eliminating diversity from the set travel options presented to the user and does not teach or even suggest a selection module configured to output a set of diverse travel options.

Similarly, new claim 29 and its dependents and claim 52 include limitations of using a defined data structure, and are distinct over Lynch for at least the same reasons as above.

Webber does not disclose what Lynch fails to disclose, so neither Lynch nor Webber, alone or in combination, render the applicant's invention obvious. For the Webber teachings, the examiner cites col. 7, line 53 to col. 8, line 2, and parts thereof. Similar to Lynch, this section

describes a procedure "to find all of the itineraries which could be used to satisfy the trip request being processed." This is a procedure that generates the candidate set of travel options. At this point in the Webber process, the itineraries do not even have an associated price. In contrast, in the applicant's invention, the candidate set of travel options is reduced to a smaller, diverse set of travel options.

Further, this section of Webber teaches finding itineraries "which meet the constraints of the relevant policy file and traveler file and any other constraints that may have been keyed in FIG. 3." This describes, like Lynch, eliminating itineraries so that the remaining itineraries of the candidate set are suitable, based on the user request, company profiles, and/or other profiles. Moreover, the remaining itineraries are ranked by preferences and non-preferences, to produce "a set of itineraries which have survived so far as candidates for this trip, ranked as stated, which can then be processed." Webber teaches eliminating diversity from the set travel options presented to the user and does not teach or even suggest a selection module configured to output a set of diverse travel options. In contrast, the applicant's claimed invention outputs a diverse set of travel options that includes at least one travel option compliant with a first travel requirement and at least one travel option compliant with a second travel requirement.

Like Lynch, Webber also does not describe the data structure limitations of the applicants claimed invention.